

Title (en)

METHOD AND SYSTEM FOR HYDROTHERMAL CARBONIZATION AND WET OXIDATION OF SLUDGE

Title (de)

VERFAHREN UND ANLAGE ZUR HYDROTHERMISCHEN KARBONISIERUNG UND NASSOXIDATION VON SCHLAMM

Title (fr)

PROCÉDÉ ET SYSTÈME DE CARBONISATION HYDROTHERMALE ET D'OXYDATION HUMIDE DE BOUES

Publication

**EP 3887490 A1 20211006 (EN)**

Application

**EP 19890942 A 20191122**

Priority

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- SE 2019051187 W 20191122

Abstract (en)

[origin: WO2020112007A1] There is provided a method of hydrothermal carbonization of a sludge from a wastewater treatment plant, comprising the steps of: preheating the sludge with at least one first steam fraction to obtain a preheated sludge; further heating the preheated sludge with a second steam fraction to obtain a heated sludge; subjecting the heated sludge to hydrothermal carbonization (HTC) in a reactor to obtain a HTC-treated slurry; mixing the HTC-treated slurry with an oxidizing agent, such as oxygen gas, to obtain a wet-oxidized slurry; subjecting the wet-oxidized slurry to flashing to obtain the second steam fraction and a pre-cooled slurry; subjecting the pre-cooled slurry to flashing in at least one step to obtain the at least one first steam fraction and a cooled slurry; separating the cooled slurry into a liquid fraction and a solids fraction; and routing the liquid fraction to the wastewater treatment plant for further treatment, wherein the second steam fraction is used for heating preheated sludge to the temperature of the HTC reaction. A corresponding system is also provided.

IPC 8 full level

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CPC (source: EP SE US)

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